



Analysis of Regions Not Currently Involved in WIRED Grants or RIGs: Lower West Virginia Area

October 2008

Lower West Virginia Area

Floyd County, Kentucky
Johnson County, Kentucky
Letcher County, Kentucky
Magoffin County, Kentucky
Martin County, Kentucky
Pike County, Kentucky
Boone County, West Virginia
Lincoln County, West Virginia
Logan County, West Virginia
Mingo County, West Virginia
Wyoming County, West Virginia

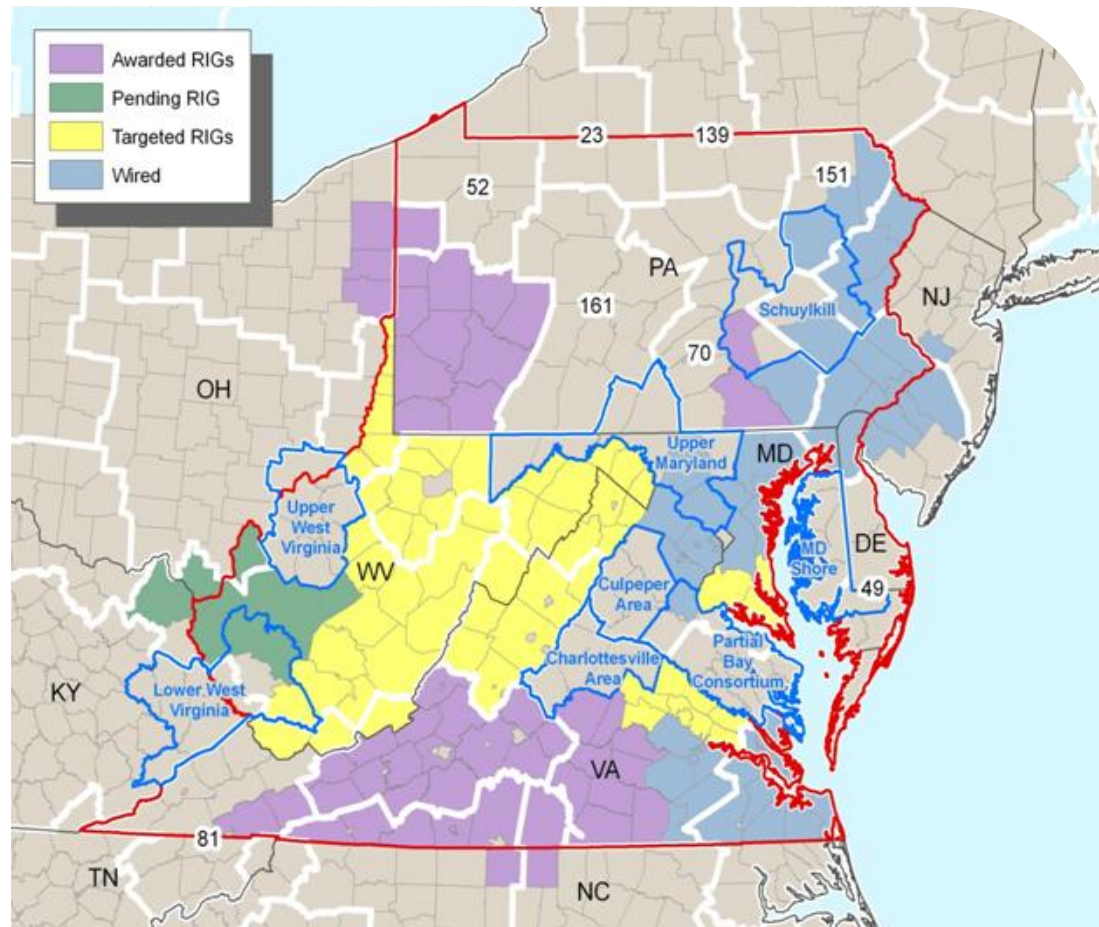




Table of Contents

About This Report	3
Frequently Asked Questions	3
Executive Summary	4
Industry and Occupation Clusters	5
Employment by Major Sector	7
Top 20 Employers by 3-Digit NAICS	8
Industries with Largest Employment Gains and Losses	9
Declining Occupations	11
Growing Occupations	13
Forecast Occupation Gaps	14
Forecast Skill Needs	16
Appendix: Clusters	17

About This Report

Chmura Economics & Analytics recognizes that accurate, timely data can be difficult to find. This regional report provides employment, wages, occupations, and skills data that can be used as background for an RIG application.

Frequently Asked Questions

What data sources were utilized in the creation of this report?

The data for this report come from a variety of sources. All data are checked, cleaned, combined, organized, and displayed in a way to maximize its usefulness. Yearly employment data in the below charts are based on four-quarter averages. Data for regions outside of Virginia and Ohio are imputed when not disclosed. A few of the sources of data which have been used in the creation of this report are:

- Quarterly Census of Employment and Wages (QCEW)
- Local Area Unemployment Statistics (LAUS)
- Occupation and Industry Forecasts
- Local Employment Dynamics (LED)
- O*Net
- National Center for Education Statistics
- Occupational Employment Statistics (OES)

Who is Chmura Economics & Analytics?

Chmura Economics & Analytics (Chmura) is a provider of applied economic consulting, quantitative research, and software solutions requiring the integration of advanced economic analysis. Chmura publishes *Virginia Economic Trends*, *Ohio Economic Trends*, electronic publications, and forecasts available via www.chmuraecon.com. Software products include JOBSeq®, WIBeq™, and OnStage.

Chmura has headquarters in Richmond, Virginia and a branch office in Cleveland, Ohio. Chmura Economics & Analytics is committed to achieving 100% customer satisfaction in all project engagements. The Chmura philosophy is that when our customer succeeds, Chmura has been successful. To contact us, send an email to info@chmuraecon.com.



Executive Summary

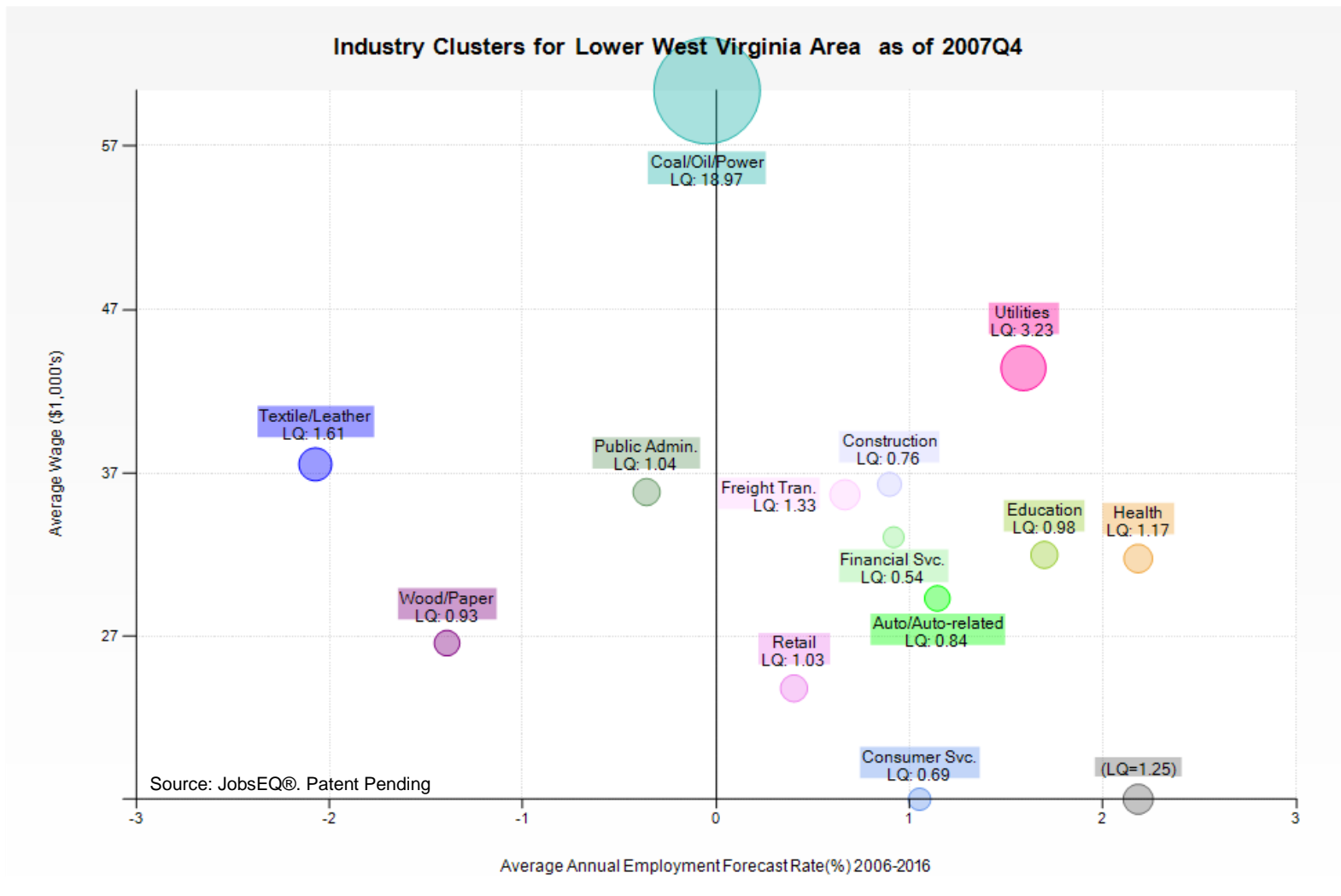
The Lower West Virginia region was created with Mingo and Logan counties as its epicenter. Commuting patterns show that Mingo County's labor market is more tied to Kentucky than West Virginia. However, commuting patterns for Logan County show its labor market stretching to the north into West Virginia. Consequently, the Lower West Virginia region straddles both West Virginia and Kentucky.

Coal mining is the major employer in Lower West Virginia. Moreover, analysis of the supply and demand for occupations in the region indicates that significant shortages exist for mining-related occupations. Even so, the industry and occupation concentrations in the Lower West Virginia region put it in a favorable position to focus on energy initiatives as a driver of future economic growth. The coal and utility industries, which have a strong presence in the region, are good candidates for innovative technologies such as coal gasification, clean coal technology, and alternative fuel platforms.

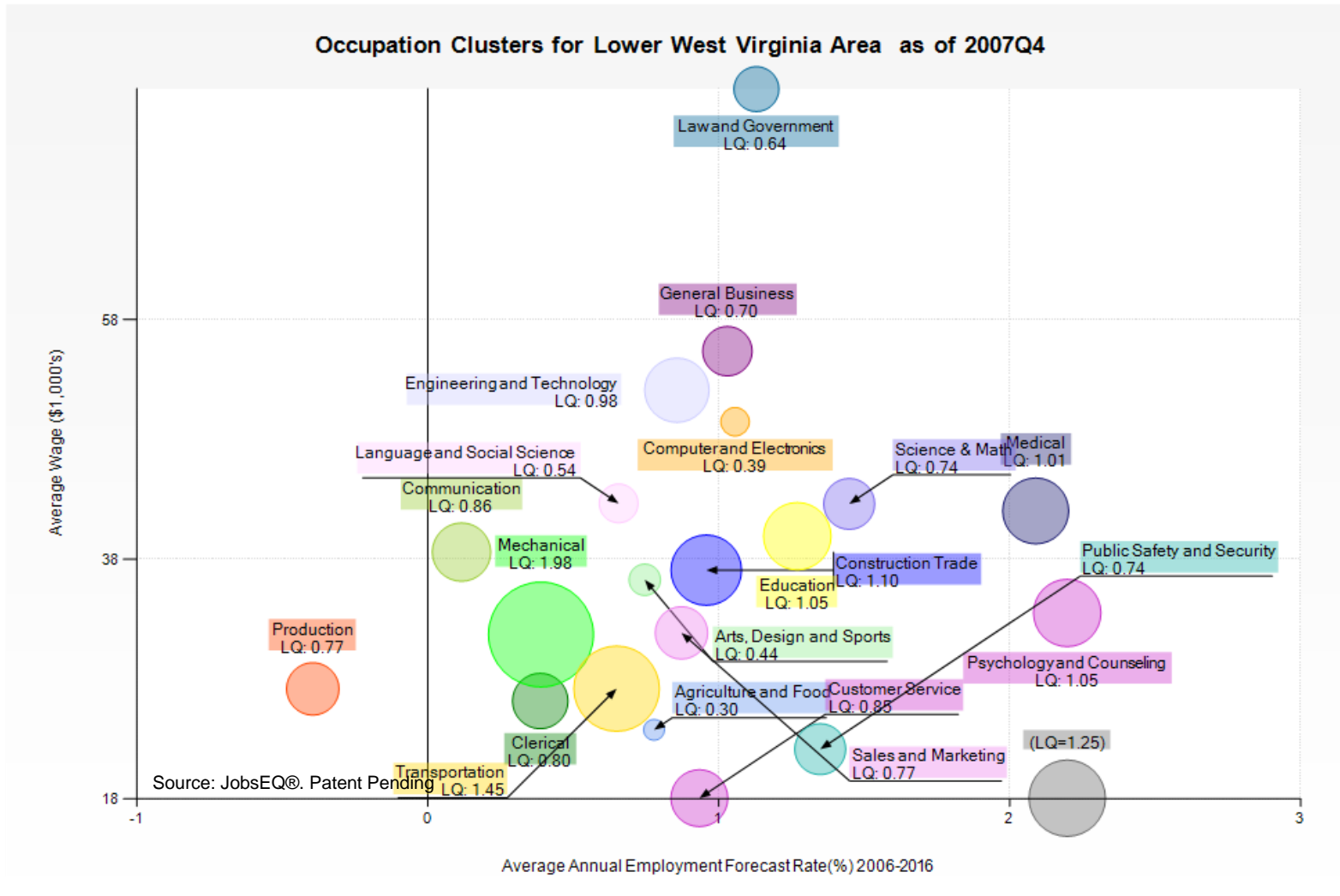
The declining manufacturing sector will continue to displace workers with mechanical and production skills. Some of these skills are transferable to industries that can grow an energy-diverse ecosystem.



Industry and Occupation Clusters



Note: See the appendix for an explanation of how to use industry and occupation cluster charts.



Employment by Major Sector

Lower West Virginia Area Employment by Major Sector

NAICS	Industry Description	Employment				Employment Change Since 2005		Annual Average Change Since 2002
		2007	2005	2002	Annual Average Wages 2007	Number	Annual Average	
0	Total	90,902	90,568	89,624	\$ 34,680	334	0.2%	0.3%
11	Agriculture, Forestry, Fishing and Hunting	225	202	232	\$ 19,445	23	5.6%	-0.6%
21	Mining, Quarrying, and Oil and Gas Extraction	17,487	16,501	14,951	\$ 61,803	987	2.9%	3.2%
22	Utilities	1,387	1,410	1,391	\$ 55,538	(23)	-0.8%	-0.1%
23	Construction	3,945	3,866	4,471	\$ 35,232	78	1.0%	-2.5%
31	Manufacturing	2,543	2,654	3,108	\$ 33,993	(111)	-2.1%	-3.9%
42	Wholesale Trade	2,383	2,375	2,314	\$ 44,830	8	0.2%	0.6%
44	Retail Trade	12,695	13,258	13,069	\$ 20,005	(563)	-2.1%	-0.6%
48	Transportation and Warehousing	4,480	4,650	4,722	\$ 34,662	(170)	-1.8%	-1.0%
51	Information	1,426	1,549	1,644	\$ 56,619	(123)	-4.1%	-2.8%
52	Finance and Insurance	2,164	2,130	2,249	\$ 33,070	34	0.8%	-0.8%
53	Real Estate and Rental and Leasing	719	768	868	\$ 32,403	(48)	-3.2%	-3.7%
54	Professional, Scientific, and Technical Services	2,513	2,653	2,460	\$ 42,522	(140)	-2.7%	0.4%
55	Management of Companies and Enterprises	277	226	286	\$ 55,727	51	10.6%	-0.6%
56	Administrative and Support and Waste Management and Remediation Services	3,118	3,041	3,434	\$ 21,479	77	1.3%	-1.9%
61	Educational Services	8,245	8,094	7,703	\$ 38,400	151	0.9%	1.4%
62	Health Care and Social Assistance	13,349	13,608	13,345	\$ 34,408	(260)	-1.0%	0.0%
71	Arts, Entertainment, and Recreation	630	545	498	\$ 21,594	86	7.6%	4.8%
72	Accommodation and Food Services	5,723	5,534	5,625	\$ 11,753	189	1.7%	0.3%
81	Other Services (except Public Administration)	2,286	2,501	2,465	\$ 24,118	(215)	-4.4%	-1.5%
92	Public Administration	5,091	4,935	4,705	\$ 36,157	156	1.6%	1.6%

Employment growth is the broadest and most timely indicator of the general health of an economy.

Information obtained from this table provides insight to questions such as:

- Which industries are posting the largest increases or decreases in employment? What are their average wages—will the trend lead to a decrease or increase in the region's overall wealth?
- Are changes in employment levels cyclical or is a particularly industry in long-term decline? What is driving that trend?

Top 20 Employers by 3-Digit NAICS

Lower West Virginia Area Top 20 Employers by 3-Digit NAICS

NAICS	Industry Description	Employment			Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002		Number	Annual Average	
212	Mining (except Oil and Gas)	14,495	14,177	13,674	\$ 63,359	319	1.1%	1.2%
611	Educational Services	8,245	8,094	7,703	\$ 38,400	151	0.9%	1.4%
722	Food Services and Drinking Places	5,192	5,057	5,129	\$ 11,320	135	1.3%	0.2%
622	Hospitals	4,390	4,378	4,494	\$ 34,280	12	0.1%	-0.5%
621	Ambulatory Health Care Services	4,388	4,412	4,026	\$ 37,237	(24)	-0.3%	1.7%
452	General Merchandise Stores	2,975	3,215	3,116	\$ 18,510	(240)	-3.8%	-0.9%
561	Administrative and Support Services	2,838	2,713	3,105	\$ 21,084	125	2.3%	-1.8%
445	Food and Beverage Stores	2,814	3,002	2,771	\$ 14,080	(188)	-3.2%	0.3%
541	Professional, Scientific, and Technical Services	2,513	2,653	2,460	\$ 42,522	(140)	-2.7%	0.4%
624	Social Assistance	2,497	2,689	2,705	\$ 33,347	(192)	-3.6%	-1.6%
213	Support Activities for Mining	2,319	1,762	842	\$ 54,961	557	14.7%	22.4%
484	Truck Transportation	2,248	2,372	2,447	\$ 34,525	(124)	-2.7%	-1.7%
921	Executive, Legislative, and Other General Government Support	2,113	2,076	2,056	\$ 31,886	37	0.9%	0.6%
623	Nursing and Residential Care Facilities	2,074	2,129	2,120	\$ 30,136	(55)	-1.3%	-0.4%
238	Specialty Trade Contractors	1,909	1,782	1,977	\$ 33,399	127	3.5%	-0.7%
447	Gasoline Stations	1,702	1,795	1,916	\$ 13,471	(92)	-2.6%	-2.3%
522	Credit Intermediation and Related Activities	1,674	1,645	1,652	\$ 30,921	28	0.9%	0.3%
441	Motor Vehicle and Parts Dealers	1,657	1,688	1,716	\$ 31,268	(31)	-0.9%	-0.7%
922	Justice, Public Order, and Safety Activities	1,591	1,496	1,016	\$ 37,452	94	3.1%	9.4%
237	Heavy and Civil Engineering Construction	1,471	1,439	1,633	\$ 41,439	32	1.1%	-2.1%

The **North American Industry Classification System** (NAICS) was developed cooperatively between the United States, Canada, and Mexico to provide data users with accurate information pertaining to the economy in the 21st century. The NAICS Code is composed of six digits. The first two digits define the top-level category. The three-digit industries shown above represent components of the major sectors.

Similar to the previous table, information obtained from this table provides insight to questions such as:

- Which industries are posting the largest increases or decreases in employment? What are their average wages—will the trend lead to a decrease or increase in the region's overall wealth?
- Are changes in employment levels cyclical or is a particularly industry in long-term decline? What is driving that trend?

Industries with Largest Employment Gains and Losses

Lower West Virginia Area Top 20 Industries with Largest Employment Gain by 3-Digit NAICS

NAICS	Industry Description	Employment			Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002		Number	Percent	
213	Support Activities for Mining	2,319	1,762	842	\$ 54,961	556.69	14.7%	22.4%
313	Textile Mills	605	273	-	\$ 36,723	332.50	48.9%	#DIV/0!
212	Mining (except Oil and Gas)	14,495	14,177	13,674	\$ 63,359	318.55	1.1%	1.2%
722	Food Services and Drinking Places	5,192	5,057	5,129	\$ 11,320	134.97	1.3%	0.2%
211	Oil and Gas Extraction	673	562	435	\$ 49,738	111.20	9.4%	9.1%
922	Justice, Public Order, and Safety Activities	1,591	1,496	1,016	\$ 37,452	94.28	3.1%	9.4%
711	Performing Arts, Spectator Sports, and Related Industries	167	96	115	\$ 19,109	71.69	32.3%	7.8%
113	Forestry and Logging	212	158	106	\$ 19,600	54.30	15.9%	15.0%
721	Accommodation	531	477	496	\$ 15,655	53.87	5.5%	1.4%
551	Management of Companies and Enterprises	277	226	286	\$ 55,727	50.66	10.6%	-0.6%
921	Executive, Legislative, and Other General Government Support	2,113	2,076	2,056	\$ 31,886	37.32	0.9%	0.6%
493	Warehousing and Storage	146	110	84	\$ 39,667	36.07	15.2%	11.6%
237	Heavy and Civil Engineering Construction	1,471	1,439	1,633	\$ 41,439	32.41	1.1%	-2.1%
926	Administration of Economic Programs	682	650	681	\$ 48,222	31.60	2.4%	0.0%
442	Furniture and Home Furnishings Stores	198	167	198	\$ 19,674	31.40	9.0%	0.0%
522	Credit Intermediation and Related Activities	1,674	1,645	1,652	\$ 30,921	28.32	0.9%	0.3%
713	Amusement, Gambling, and Recreation Industries	365	339	250	\$ 21,455	25.33	3.7%	7.8%
424	Merchant Wholesalers, Nondurable Goods	884	861	843	\$ 38,848	23.03	1.3%	0.9%
444	Building Material and Garden Equipment and Supplies Dealers	977	954	947	\$ 22,737	22.85	1.2%	0.6%
511	Publishing Industries (except Internet)	272	251	267	\$ 59,123	21.49	4.2%	0.4%

Information obtained from the table above identifies the industries that are adding the largest number of jobs which translates into those creating the greatest demand for new workers.

Lower West Virginia Area Top 20 Industries with Largest Employment Loss by 3-Digit NAICS

NAICS	Industry Description	Employment			Employment Change Since 2005			Annual Aver Change Since 2002
		2007	2005	2002	Annual Aver Wages 2007	Number	Annual Average	
452	General Merchandise Stores	2,975	3,215	3,116	\$ 18,510	(240)	-3.8%	-0.9%
624	Social Assistance	2,497	2,689	2,705	\$ 33,347	(192)	-3.6%	-1.6%
445	Food and Beverage Stores	2,814	3,002	2,771	\$ 14,080	(188)	-3.2%	0.3%
813	Religious, Grantmaking, Civic, Professional, and Similar Organiza	550	696	698	\$ 14,459	(146)	-11.1%	-4.7%
484	Truck Transportation	2,248	2,372	2,447	\$ 34,525	(124)	-2.7%	-1.7%
311	Food Manufacturing	-	114	364	\$ 13,574	(114)	-100.0%	-100.0%
447	Gasoline Stations	1,702	1,795	1,916	\$ 13,471	(92)	-2.6%	-2.3%
485	Transit and Ground Passenger Transportation	1,103	1,186	1,161	\$ 31,307	(83)	-3.6%	-1.0%
236	Construction of Buildings	565	646	861	\$ 26,911	(81)	-6.5%	-8.1%
332	Fabricated Metal Product Manufacturing	633	694	941	\$ 35,357	(60)	-4.5%	-7.6%
623	Nursing and Residential Care Facilities	2,074	2,129	2,120	\$ 30,136	(55)	-1.3%	-0.4%
562	Waste Management and Remediation Services	281	328	329	\$ 25,044	(47)	-7.5%	-3.1%
454	Nonstore Retailers	27	72	73	\$ 21,253	(45)	-38.6%	-18.0%
811	Repair and Maintenance	1,124	1,160	1,049	\$ 30,123	(36)	-1.6%	1.4%
441	Motor Vehicle and Parts Dealers	1,657	1,688	1,716	\$ 31,268	(31)	-0.9%	-0.7%
812	Personal and Laundry Services	533	559	574	\$ 22,959	(26)	-2.4%	-1.5%
621	Ambulatory Health Care Services	4,388	4,412	4,026	\$ 37,237	(24)	-0.3%	1.7%
515	Broadcasting (except Internet)	163	187	227	\$ 46,076	(24)	-6.7%	-6.5%
221	Utilities	1,387	1,410	1,391	\$ 55,538	(23)	-0.8%	-0.1%
923	Administration of Human Resource Programs	277	297	466	\$ 37,283	(20)	-3.4%	-9.8%

Information obtained from the table above identifies the industries that are shedding the largest number of workers which translates into the number of people who are likely looking for jobs in the region or in need of retraining.

Declining Occupations

Lower West Virginia Area Top 20 Declining Occupations Based on Top 20 Declining Industries

Occupation Description	SOC	Employment			Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002		Number	Annual Average	
Cashiers	41-2011	2,608	2,780	2,769	\$ 15,672	(172)	-3.1%	-1.2%
Truck Drivers, Heavy and Tractor-Trailer	53-3032	1,235	1,322	1,363	\$ 31,274	(87)	-3.3%	-1.9%
Retail Salespersons	41-2031	1,301	1,388	1,381	\$ 21,635	(87)	-3.2%	-1.2%
Bus Drivers, School	53-3022	773	851	819	\$ 20,900	(78)	-4.7%	-1.2%
Home Health Aides	31-1011	345	409	441	\$ 16,967	(65)	-8.3%	-4.8%
Stock Clerks and Order Fillers	43-5081	866	930	890	\$ 18,422	(64)	-3.5%	-0.5%
Personal and Home Care Aides	39-9021	471	529	563	\$ 15,986	(58)	-5.7%	-3.5%
Child Care Workers	39-9011	248	297	270	\$ 15,668	(49)	-8.7%	-1.7%
Preschool Teachers, Ex Special Education	25-2011	172	217	181	\$ 19,952	(45)	-11.1%	-1.1%
First-Line Supervisors/Mgrs of Retail Sales Workers	41-1011	532	565	562	\$ 32,573	(33)	-2.9%	-1.1%
Packers and Packagers, Hand	53-7064	295	322	321	\$ 15,378	(27)	-4.3%	-1.7%
General and Operations Mgrs	11-1021	398	424	426	\$ 73,836	(27)	-3.2%	-1.4%
Office Clerks, General	43-9061	552	577	572	\$ 20,913	(25)	-2.2%	-0.7%
Bakers	51-3011	70	92	127	\$ 21,935	(23)	-13.1%	-11.3%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	353	375	385	\$ 20,094	(22)	-3.0%	-1.7%
Carpenters	47-2031	150	171	218	\$ 36,012	(21)	-6.2%	-7.1%
Teacher Assistants	25-9041	101	120	108	\$ 16,865	(19)	-8.3%	-1.3%
Customer Service Representatives	43-4051	287	305	304	\$ 24,150	(19)	-3.1%	-1.2%
Bookkeeping, Accounting, and Auditing Clerks	43-3031	349	367	368	\$ 26,155	(18)	-2.4%	-1.1%
Machinists	51-4041	164	182	188	\$ 29,271	(18)	-5.0%	-2.6%

The **Standard Occupational Classification** (SOC) system is used by all Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of over 820 occupations according to their occupational definition. Each occupation group includes detailed occupation(s) requiring similar job duties, skills, education, or experience. This system is provided by the U.S. Department of Labor, Bureau of Labor Statistics.

The table above identifies the most prevalent occupations in the regional industries shedding the most workers over the past year. The occupations on this list identify those that are in need of retraining or transferring to other industries.

Lower West Virginia Area Top 20 Declining Occupations Based on All Industries

Occupation Description	SOC	Employment			Annual Aver Wages	Employment		Annual Aver Change Since 2002 Q4
		2007 Q4	2006 Q4	2002 Q4		Number	Percent	
Truck Drivers, Heavy and Tractor-Trailer	53-3032	2,124	2,224	2,152	\$ 30,524	(100)	-4.5%	-0.3%
Operating Engineers and Other Construction Equipment Operators	47-2073	2,262	2,359	2,157	\$ 33,453	(97)	-4.1%	1.0%
Preschool Teachers, Except Special Education	25-2011	227	268	226	\$ 25,414	(41)	-15.4%	0.1%
Excavating and Loading Machine and Dragline Operators	53-7032	914	953	859	\$ 31,949	(39)	-4.1%	1.3%
Roof Bolters, Mining	47-5061	848	885	797	\$ 35,658	(37)	-4.2%	1.2%
Child Care Workers	39-9011	363	400	367	\$ 16,797	(37)	-9.2%	-0.2%
Customer Service Representatives	43-4051	917	950	973	\$ 25,961	(33)	-3.5%	-1.2%
Cashiers	41-2011	3,484	3,515	3,603	\$ 15,563	(32)	-0.9%	-0.7%
Continuous Mining Machine Operators	47-5041	661	692	621	\$ 32,690	(31)	-4.4%	1.3%
Helpers--Extraction Workers	47-5081	1,001	1,030	859	\$ 29,171	(28)	-2.7%	3.1%
Electricians	47-2111	787	815	787	\$ 39,662	(28)	-3.5%	0.0%
First-Line Supervisors/Managers of Construction Trades and Extraction Workers	47-1011	1,214	1,241	1,131	\$ 53,490	(26)	-2.1%	1.4%
Shuttle Car Operators	53-7111	532	557	501	\$ 33,074	(25)	-4.5%	1.2%
Mobile Heavy Equipment Mechanics, Except Engines	49-3042	624	649	585	\$ 35,254	(25)	-3.8%	1.3%
Emergency Medical Technicians and Paramedics	29-2041	259	280	215	\$ 23,906	(21)	-7.5%	3.7%
Accountants and Auditors	13-2011	526	544	501	\$ 53,119	(18)	-3.3%	1.0%
Welders, Cutters, Solderers, and Brazers	51-4121	393	409	378	\$ 30,768	(16)	-3.9%	0.8%
General and Operations Managers	11-1021	1,255	1,271	1,211	\$ 79,676	(16)	-1.3%	0.7%
Telecommunications Line Installers and Repairers	49-9052	105	121	119	\$ 41,392	(16)	-13.0%	-2.5%
Telemarketers	41-9041	246	262	291	\$ 22,201	(16)	-6.0%	-3.3%

The table above identifies the most prevalent occupations that are declining from ALL industries in the region. The occupations on this list identify those that are in need of retraining or transferring to other industries.

Growing Occupations

Lower West Virginia Area Top 20 Growing Occupations Based on All Industries

Occupation Description	SOC	Employment			Annual Aver Wages 2007 Q4	Employment Change		Annual Aver Change Since 2002 Q4
		2007 Q4	2006 Q4	2002 Q4		Number	Percent	
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064	235	133	1	\$ 20,205	102	76.8%	188.1%
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	1,855	1,789	1,944	\$ 13,810	66	3.7%	-0.9%
Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	133	107	90	\$ 46,116	26	24.7%	8.1%
Cooks, Fast Food	35-2011	583	561	613	\$ 13,966	22	3.9%	-1.0%
Roustabouts, Oil and Gas	47-5071	306	285	122	\$ 23,684	21	7.3%	20.3%
Roofers	47-2181	62	41	45	\$ 31,081	20	48.5%	6.7%
Bus Drivers, School	53-3022	995	980	1,052	\$ 17,567	15	1.5%	-1.1%
Ushers, Lobby Attendants, and Ticket Takers	39-3031	39	24	26	\$ 17,273	15	61.0%	8.4%
Brickmasons and Blockmasons	47-2021	68	53	56	\$ 36,676	15	27.9%	3.9%
Retail Salespersons	41-2031	2,503	2,489	2,584	\$ 21,597	15	0.6%	-0.6%
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	51-6063	34	20	1	\$ 20,282	14	70.7%	88.9%
Bakers	51-3011	118	104	143	\$ 21,342	14	13.5%	-3.7%
Nursing Aides, Orderlies, and Attendants	31-1012	1,091	1,077	1,096	\$ 20,269	14	1.3%	-0.1%
Security Guards	33-9032	1,001	988	874	\$ 20,150	13	1.3%	2.7%
First-Line Supervisors/Managers of Food Preparation and Serving Workers	35-1012	501	488	510	\$ 24,184	12	2.5%	-0.4%
Service Unit Operators, Oil, Gas, and Mining	47-5013	168	156	66	\$ 31,376	12	7.4%	20.6%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	35-3022	337	325	353	\$ 14,973	11	3.5%	-0.9%
Derrick Operators, Oil and Gas	47-5011	159	148	60	\$ 33,402	11	7.5%	21.4%
Rotary Drill Operators, Oil and Gas	47-5012	150	139	57	\$ 36,561	10	7.5%	21.2%
Carpenters	47-2031	374	364	420	\$ 34,844	10	2.9%	-2.3%

The table above identifies the most prevalent occupations that are in demand for the industries in the region that are showing the largest employment growth.

Forecast Occupation Gaps

Lower West Virginia Area Gaps in Top 20 Occupations (Requiring 2-Year Degree or Greater) Over Next 7 Years

Occupation Description	SOC	Annual Occupation Gaps	Employment			Annual Aver Wages 2007 Q4
			2007 Q4	2006 Q4	2002 Q4	
Registered Nurses	29-1111	106	1,698	1,688	1,761	\$ 52,440
Elementary School Teachers, Except Special Education	25-2021	94	1,136	1,131	1,195	\$ 42,969
Secondary School Teachers, Except Special and Vocational Education	25-2031	62	820	816	862	\$ 44,071
Middle School Teachers, Except Special and Vocational Education	25-2022	44	499	496	525	\$ 41,720
Accountants and Auditors	13-2011	39	526	544	501	\$ 53,119
General and Operations Managers	11-1021	35	1,255	1,271	1,211	\$ 79,676
Bookkeeping, Accounting, and Auditing Clerks	43-3031	27	1,015	1,027	998	\$ 27,151
Social and Human Service Assistants	21-1093	24	261	264	252	\$ 22,511
Teacher Assistants	25-9041	23	943	956	979	\$ 19,299
Teachers and Instructors, All Other	25-3099	21	350	351	362	\$ 28,437
Executive Secretaries and Administrative Assistants	43-6011	19	695	700	682	\$ 33,746
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	41-4012	19	590	589	560	\$ 49,087
First-Line Supervisors/Managers of Office and Administrative Support Workers	43-1011	19	775	782	770	\$ 39,452
Lawyers	23-1011	17	270	278	274	\$ 106,039
Preschool Teachers, Except Special Education	25-2011	16	227	268	226	\$ 25,414
Child, Family, and School Social Workers	21-1021	16	167	168	170	\$ 33,748
Pharmacists	29-1051	15	211	211	207	\$ 83,175
Licensed Practical and Licensed Vocational Nurses	29-2061	15	533	529	540	\$ 32,558
Special Education Teachers, Preschool, Kindergarten, and Elementary School	25-2041	15	167	167	175	\$ 42,390
Business Operations Specialists, All Other	13-1199	14	275	279	267	\$ 50,928

The **Gap** forecasts the average annual number of individuals needed in the occupation beyond the supply of new workers. It includes changes due to replacements. For example, consider the case in which a retail salesperson gets a degree, leaves their occupation, and becomes a financial analyst. This turnover dictates that a new retail salesperson is needed. Even though the total number of retail salespersons in the region is unchanged, the gap counts this situation as an increase of one in demand for retail salesperson. It also includes expected changes due to worker preferences and wages.

This table provides insight into the occupations that typically require a 2-year degree or greater that are expected to be in greatest demand.



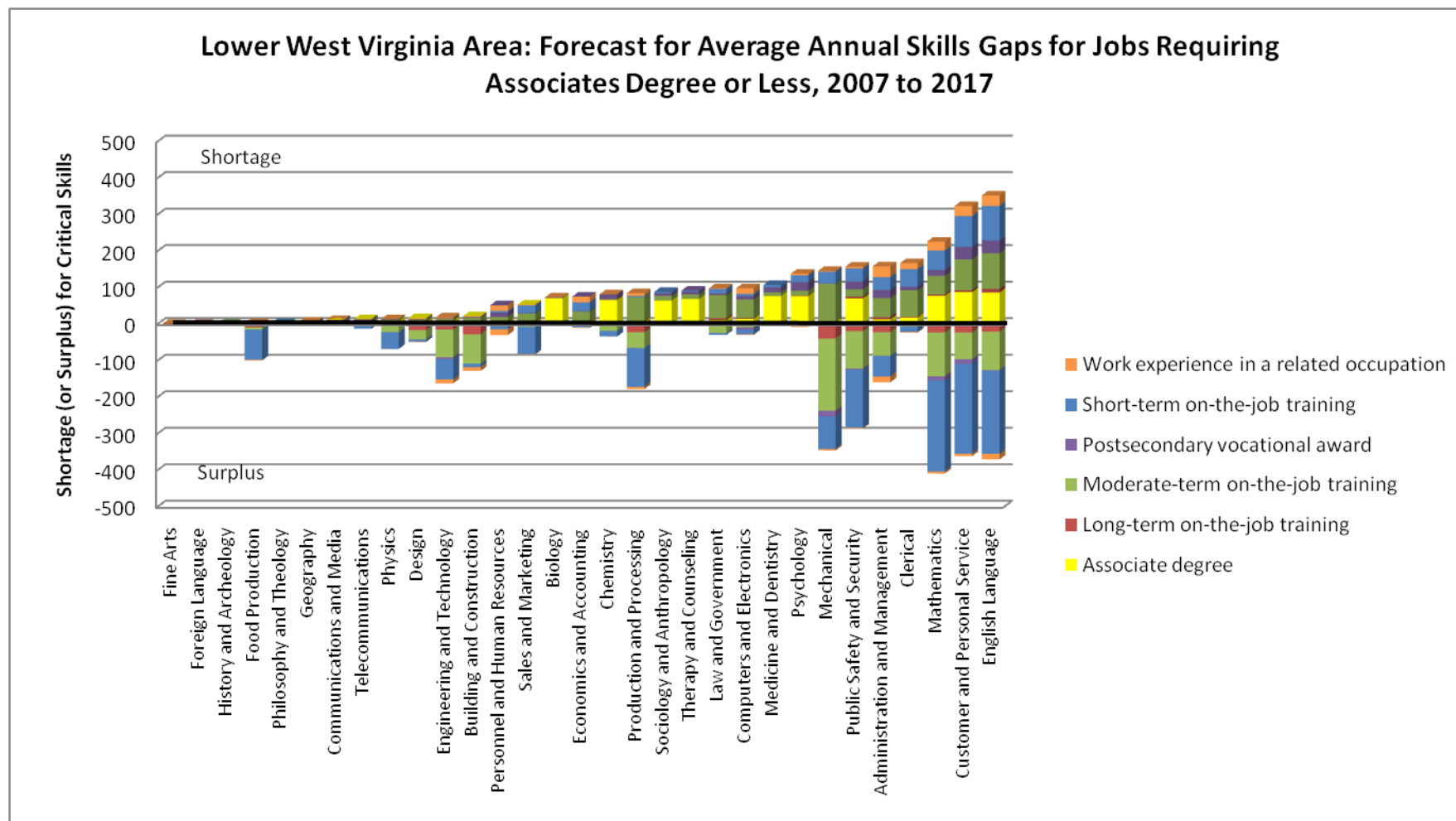
Lower West Virginia Area

Lower West Virginia Area Gaps in Top 20 Occupations (Requiring Less than 2-Year Degree) Over Next 7 Years

SOC	Occupation Description	Annual Occupation Gaps	Employment			Annual Aver Wages 2007 Q4
			2007 Q4	2006 Q4	2002 Q4	
47-5061	Roof Bolters, Mining	94	848	885	797	\$ 35,658
53-7111	Shuttle Car Operators	60	532	557	501	\$ 33,074
43-9061	Office Clerks, General	42	1,555	1,559	1,541	\$ 21,766
53-7033	Loading Machine Operators, Underground Mining	30	315	329	296	\$ 37,686
41-2031	Retail Salespersons	27	2,503	2,489	2,584	\$ 21,597
43-6014	Secretaries, Except Legal, Medical, and Executive	24	1,025	1,030	1,006	\$ 24,110
47-4061	Rail-Track Laying and Maintenance Equipment Operators	20	226	238	215	\$ 35,232
33-9032	Security Guards	19	1,001	988	874	\$ 20,150
47-5049	Mining Machine Operators, All Other	17	183	191	172	\$ 34,586
53-7031	Dredge Operators	14	235	245	222	\$ 33,692
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	14	858	865	879	\$ 33,093
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and	12	159	167	151	\$ 31,045
39-9021	Personal and Home Care Aides	12	488	495	544	\$ 15,868
43-4051	Customer Service Representatives	12	917	950	973	\$ 25,961
29-2041	Emergency Medical Technicians and Paramedics	9	259	280	215	\$ 23,906
43-6013	Medical Secretaries	8	285	282	270	\$ 25,750
39-6032	Transportation Attendants, Except Flight Attendants and Baggage Porters	7	32	31	33	\$ 16,804
31-1011	Home Health Aides	6	383	393	441	\$ 17,254
53-3022	Bus Drivers, School	6	995	980	1,052	\$ 17,567
43-4171	Receptionists and Information Clerks	6	594	596	579	\$ 21,047

This table provides insight into the occupations that typically require less than a 2-year degree that are expected to be in greatest demand.

Forecast Skill Needs



The chart above identifies the skills needed for the gap occupations identified on the previous page that typically require less than a 2-year degree.



Appendix: Clusters

Cluster charts display a geographic concentration of interrelated industries or occupations.

- **Cluster**
 - Industry clusters can form and grow because of a region's competitive advantage—resources such as location, trained labor, and education systems.
 - Occupation clusters describe the specialization of a region's workforce.
- **Location Quotient - (LQ)** This value is shown by the size of the circle; the larger the circle, the larger the location quotient.
 - A location quotient greater than 1.0 indicates that the region has a higher concentration of employment in a particular industry or occupation than the nation; a location quotient less than 1 indicates the region has a lower concentration of employment in the cluster than the nation.
 - If a regional industry group has a location quotient of 1.25 or higher, it is considered to possess a *Competitive Advantage* in that industry.
 - Only industries or occupations with an LQ higher than .5 are shown in the clusters chart.
 - Nondisclosure - if cluster data are nondisclosable, a range will be given for the LQ.
- **Average Wages** - This value is shown on the vertical axis. The higher the circle is shown on the chart, the higher the average wages in that cluster.
- **Forecast Growth** - The forecast growth rate for a cluster is the annual average percentage change in employment expected over the given period. This value is shown along the horizontal axis. The further to the right a cluster's circle is shown, the greater the growth expected in that cluster. The expected growth is based upon a long-range national industry and occupation forecast and may not reflect short-term and regional fluctuations.